



## How to hardwire the Sony DSC-S40 Digital Camera

Copyright©, PixController <http://www.PixController.com>, all rights reserved.



This document covers in detail how to modify the Sony DSC-S40 digital camera for remote shutter control from the PixController Universal or LE camera control board. Please see <http://www.pixcontroller.com> or email [support@pixcontroller.com](mailto:support@pixcontroller.com) for more information.

**Please note that if you make this modification to your Sony camera that you will void your camera's warranty. This modification can also result in damage to your digital camera if you do not follow the instructions properly.**

### Tools/Parts Needed

1. 2.4 mm #0 Philips Screwdriver & Small Flat Blade Screwdriver.
2. Fine tipped soldering iron with heat control.
3. 30 Gauge wire. Wire Wrap type wire can be purchased from your local Radio Shack store. Find one of the 3 part numbers: 278-501, 278-502, 278-503. They come in a spool of 50 feet of wire for \$2.99
4. Small tweezers.
5. Flat blade screw driver or knife.
6. Sony DSC-S40 flat flex cable from Nature-Qwest, LLC., or purchase the Universal or LE Sony S40 kit.
7. PixController Universal board with Sony S40-U PIC chip, or LE board with LE II PIC chip

### Remove batteries and media card

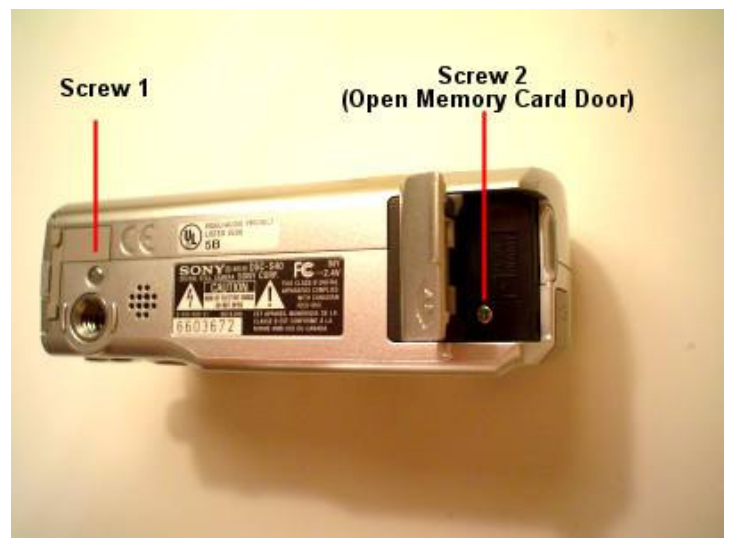
Before starting your project be sure to remove the 2 AA internal batteries and the Media Card.



Remove the 2 AA batteries and Media Card

### Remove the camera case screws

Remove all 3 screws from the camera case. Be sure to place the screws in a safe place while modifying the camera.



Remove screws 1, and 2 from the bottom of the camera case.  
Note, screw 2 is under the memory card door.

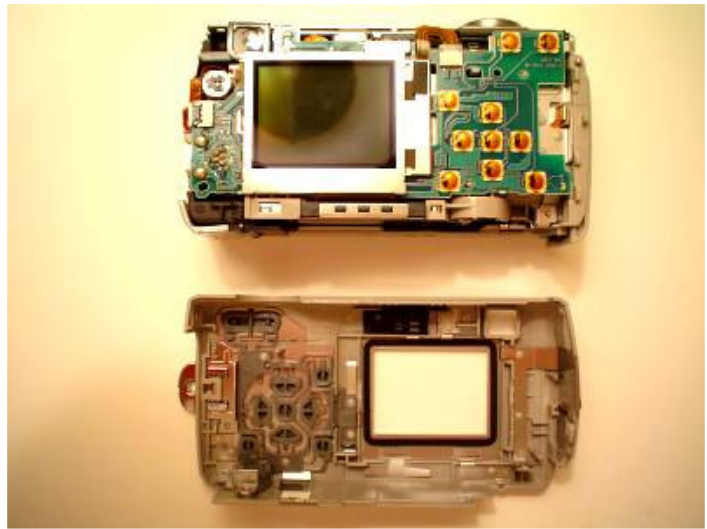


Remove screw 3 from the right side of the case.

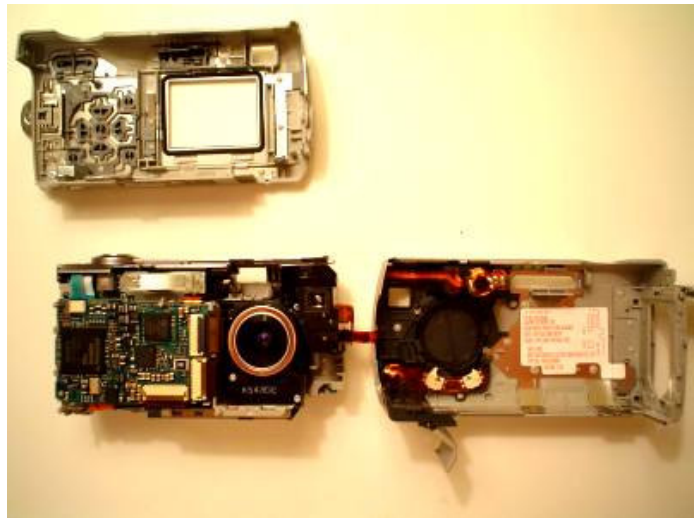
## **Remove the case**

Carefully remove the back of the camera case from the camera exposing the interior electronics, Figure 1.

Next, remove the front of the camera case, Figure 2. This is a little harder to remove, but take your time and unsnap all of the hinges. The front of the case will be attached with a small ribbon cable, so take care as not to handle this too hard or damage the ribbon cable.



**Figure 1**

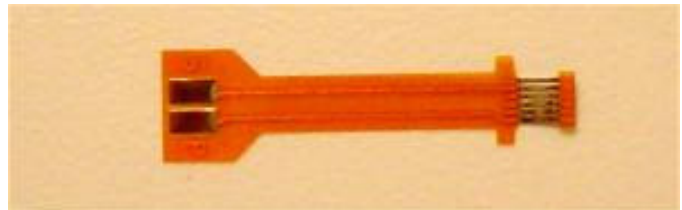


**Figure 2**

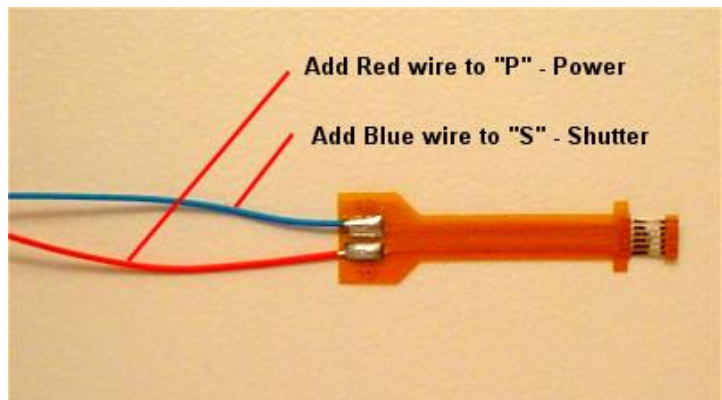
## **Prep the S40 Shutter Assembly Cable**

You must use the S40 Shutter Assembly Cable in order to modify this digital camera. The solder contacts are too small even for the most skilled technician to handle.

You must add 2 small gauge wires to the cable before you start. Add the wires to the solder points shown in Figure 3. In our example we added a Red wire to the solder pad "P" for Power on/off, and Blue to solder pad "S" for shutter.



Sony S40 Shutter Assembly cable from Nature Qwest, LLC.



**Figure 3**

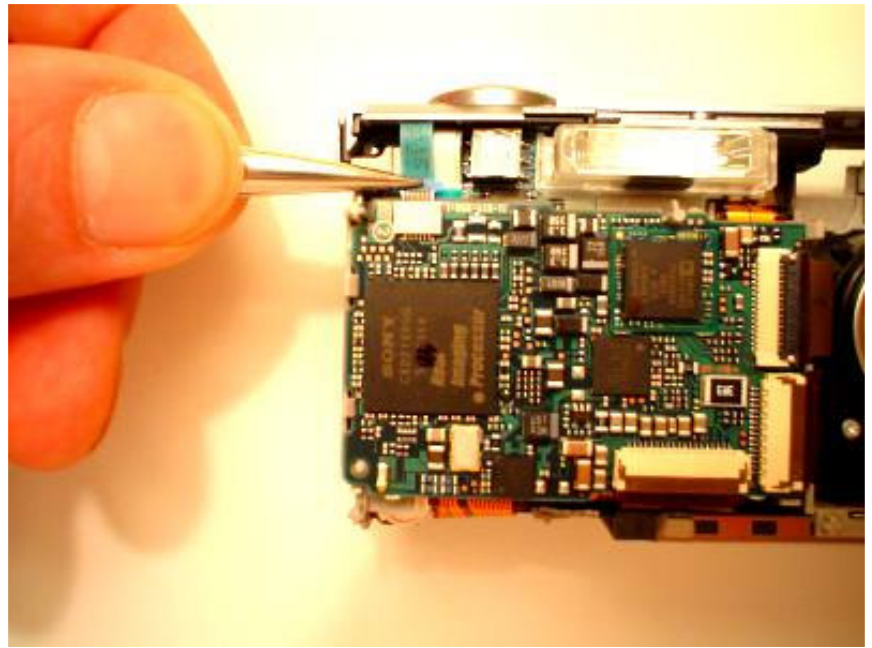
### **Insert the Shutter Assembly Cable**

The next step is to insert the S40 Shutter Assembly cable into the shutter connector.

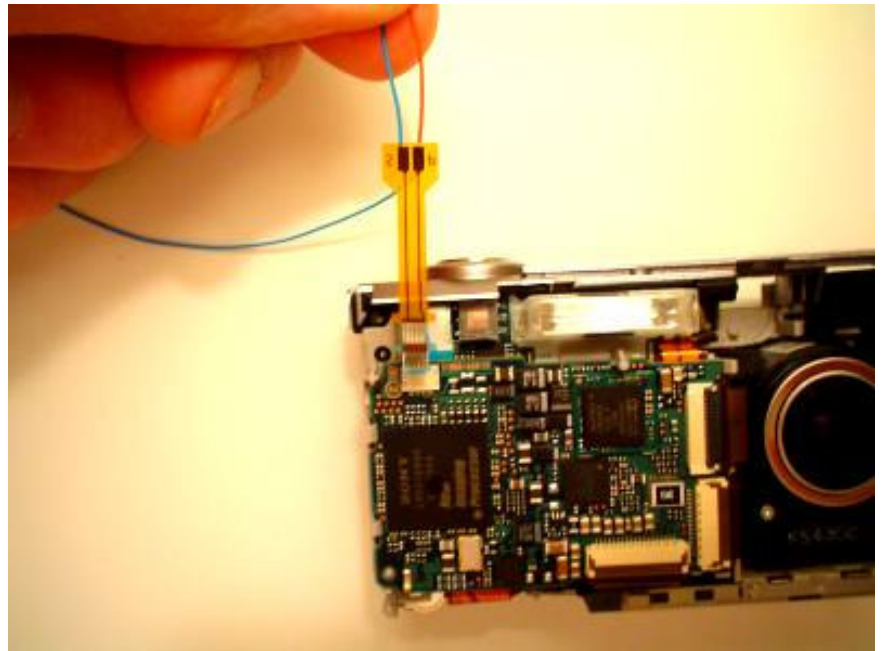
Locate the shutter connector shown in Figure 4. Using a small pair of tweezers with smooth jaws carefully remove the cable from this connector. Carefully grab the base of the ribbon cable and take your time to remove this cable.

Next insert the S40 Shutter cable, which will be sandwiched in with the current cable. Insert the cable in the orientation as shown in Figure 5. Be sure to align properly and use your tweezers to push both cables into the connector.

Once inserted add a small piece of electrical tape to keep the cable in place as shown in figure 6.



**Figure 4**



**Figure 5**



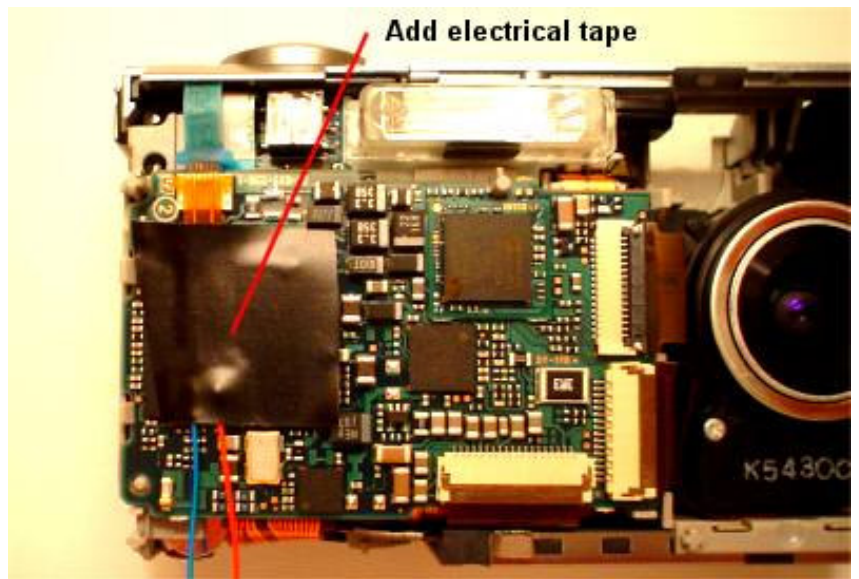


Figure 6

### Attach the ground wire

Next attach the ground wire, which is a small gauge wire, and in our example we added a black wire. This wire is soldered to one of the UBS hood solder pads on the back of the camera near the LCD display. Figure 7 shows the exact location.

The modification is now complete. You can drill a small hole in the Tripod connector and run the 3 wires, Power, Shutter, and Ground through this location, or add any connector you wish. We leave this design up to the user.

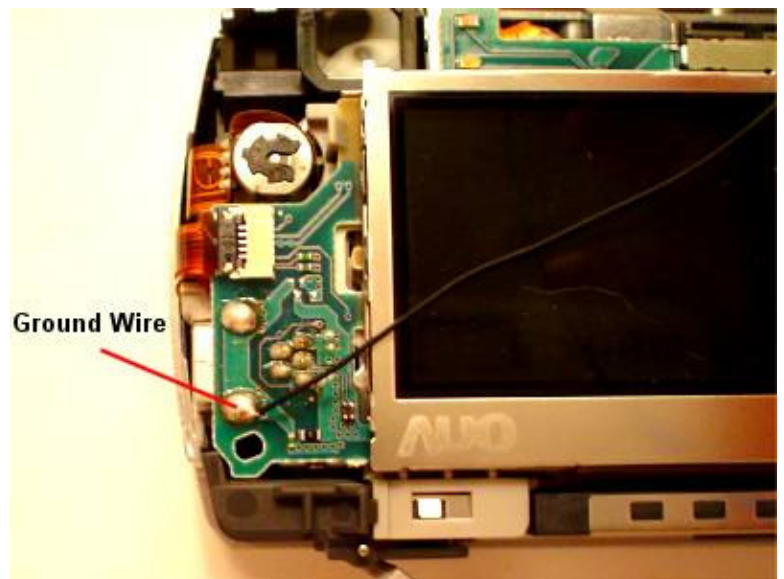
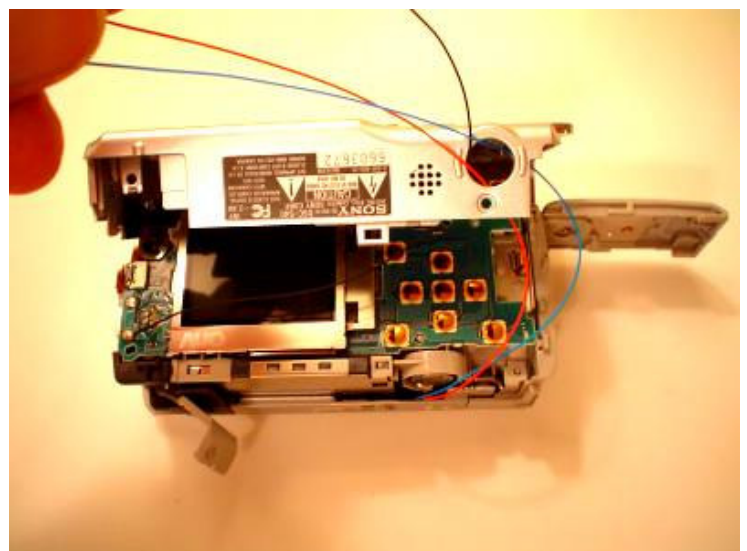


Figure 7



Route the cable through the tripod connector

## Re-attach case and replace the screws

Once you are complete with this process place the camera case back together and replace the camera case screws.



## Attaching the Sony S40 to the PixController LE Board and Universal Board

### *1. Wiring your S40 camera to the PixController LE board.*

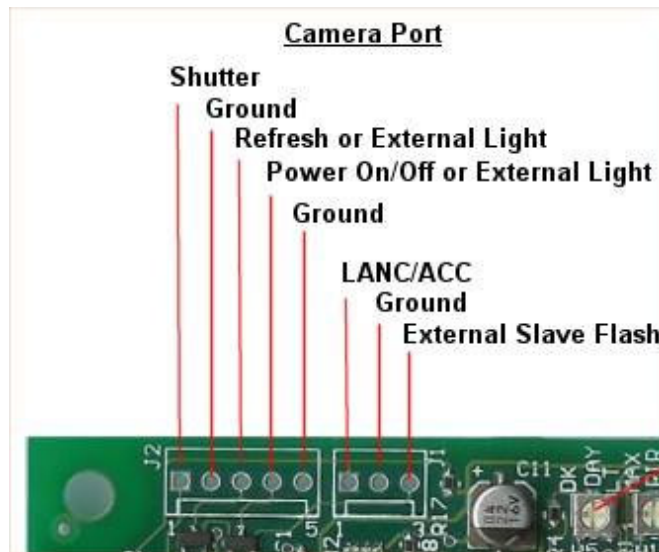
Connect the following wires to your LE board:

Shutter – Shutter on LE, J2-1

Ground – Ground on LE, J2-2

Power – Refresh on LE, J2-3

Last, remove the R17 resistor from the LE board, see: [http://www.pixcontroller.com/PixLE/PixLE\\_ResistorRemoval.htm](http://www.pixcontroller.com/PixLE/PixLE_ResistorRemoval.htm)



**PixController LE Camera Port Diagram**

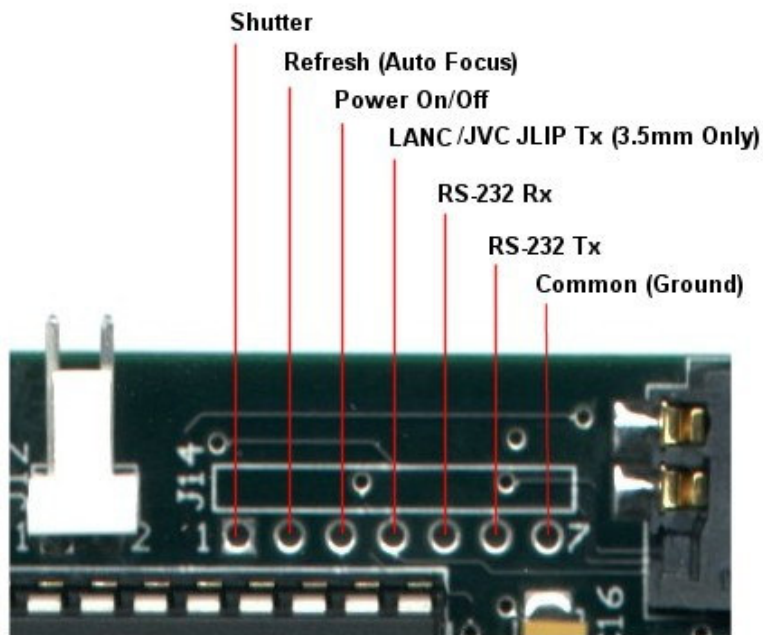
### *2. Wiring your S40 camera to the PixController Universal board.*

Connect the following wires to your Universal board:

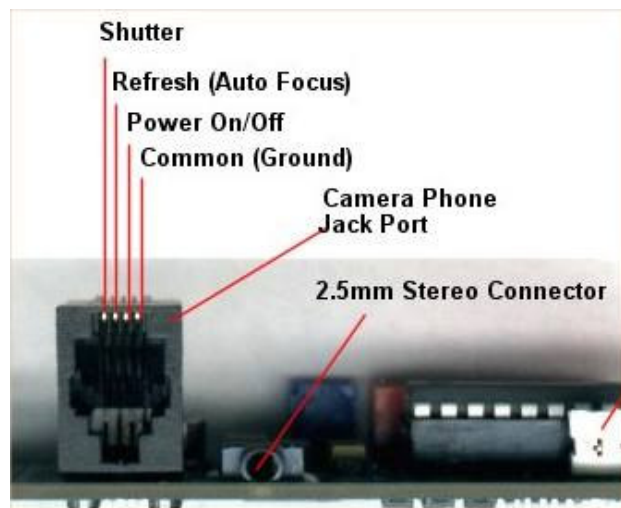
Shutter – Shutter, J14-1, or Phone Cable Shutter Wire

Ground – Ground, J14-7, or Phone Cable Ground Wire

Power – Power, J14-3, or Phone Cable Power Wire



**PixController Universal Camera Port Diagram**



**PixController Universal Phone Port**



*Completed Modification*

### Zoom Lens issue

Because of the zoom lens on the Sony S40 this can be an issue to get a good seal between the camera lens and the case as to not get flash bleed during night photos.

Figure 8 shows a simple solution to this problem by adding 3 of the Large Flash Masking Washers sold on the [www.pixcontroller.com](http://www.pixcontroller.com) web site under the camera accessories. These 3 washers can be easily glued together using Marine GOOP.



Figure 8